

**Remarks**

Quotations of relevant comments from the Examiner (presented in small bold-faced type) precede applicant's remarks.

**Response to Office Action**

**Claim 3 is objected to because of the following informalities: claim 3 is objected to as being substantially duplicated of claim 2. Appropriate correction is required.**

The Examiner's objection is respectfully traversed. Claim 2 includes limitations not found in claim 3 and, consequently, has a different scope than claim 3. For example, claim 2 recites, *inter alia*, a plurality of workstations each running applications including, among other things, "a distributor component, a feature modeler, and a geometric modeler." Claim 3 also recites a plurality of workstations running "a distributor component, and a feature modeler"; however, claim 3 does not recite that the workstations runs "a geometric modeler." Thus, claim 3 and claim 2 have different scopes. The undersigned request that the Examiner withdraw his object to claim 3. If the Examiner refused to withdraw his rejection, it is respectfully requested that the Examiner cite to a MPEP section or law giving the Examiner authority to reject a claims for the reason that they are "substantially duplicate" when the claims themselves clearly recite elements of different scope.

**Claims 1-5 are rejected under 35 U.S.C. 102(e) as being unpatentable by Tang et al. (US patent no. 5,960,173).**

The Examiner's rejection of claims 1-5 in light of Tang is respectfully traversed. Tang simply does not teach or suggest the invention recited by claim 1.

Claim 1 recites a computer system operation method for use in a system comprised of a plurality of workstations arranged in a peer-to-peer architecture. The method providing a means for allowing multiple users simultaneously to modify a model of an object at separate workstations, such that any modification made at any workstation is duplicated at each other workstation in the system. The method includes receiving at a first workstation input from a user specifying a modification of a model; translating said input into a command specifying the portion of the model to be modified, and the modification to be made; modifying said model at said first workstation in accordance with said command; transmitting said command via a network to other workstations in the system; processing said command at a second workstation; and modifying said model at said second workstation in accordance with said command.

Contrary to the Examiner's assertion, Tang does not teach workstations arranged in a peer-to-peer architecture allowing multiple users simultaneously to modify a model of an object at separate workstations such that any modification made at any workstation is duplicated at each other workstation in the system. Consequently, and as further explained below, the claims of the present invention cannot be invalid for anticipation under 102 in light of Tang.

As the Examiner recognized "Tang teaches awareness of others working on similar tasks in a network environment" (Office Action, page 3). **But this is NOT what is recited by the claims.** The claims of the present invention are not directed merely to providing information about "awareness of others working on similar tasks" in the manner disclosed in Tang, but, instead, are directed to a collaborative work station in which multiple users may simultaneously work on and modify the same model and in which modification commands are exchanged between workstations. While users in Tang may be able to work on the same data (i.e., file "Y" as described at Tang col. 15 line 28 – col. 18 line 61), Tang does not make clear what happens in response to multiple users working on the same data (i.e., Tang doesn't disclose whether there is a method to prevent data corruption when multiple users work on the same data). In contrast, the present application claims a system providing for simultaneous updates of a model (thereby

preventing data corruption when multiple users work on the same model). As understood by the present applicants, the Tang system lacks the ability to duplicate modifications at multiple workstations as those modifications are being made. In other words, Tang fails to teach or suggest how to maintain synchronization between models that are being updated at different ones of the plurality of workstations.

Thus, while Tang discloses a form of collaborative work, the form is entirely different from what is claimed in the present application. Generally speaking, what the Tang system does is to inform workers of others who are working at the same time on the same application (or data). Tang refers to this as exchanging information about other users who are “task proximate” to each other. If a user notes that he is task proximate to another user, he may, e.g., call him to work together, to ask him what he intends to do. (Tang, col. 17, l. 64 – col. 18, l. 5). This is quite different from the present invention whereby the users are working simultaneously on the same model of an object and the modifications of the model are duplicated at each workstations. Although Tang enables a user to know what the other users are doing, Tang does not appear to disclose or suggest duplication of each user’s modifications as recited by the claims of the present application. Thus, contrary to the statements of the Examiner (OA beginning of page 3), there is no modification of a model in Tang.

The Examiner’s rejection of claim 1 is covered in more detail, below.

**Re claim 1, Tang discloses a computer system operation method for use in a system comprised of a plurality of workstations arranged in a peer-to-peer architecture (col. 3, lines 34-45)**

Contrary to the Examiner’s suggestion, col. 3, lines 34-45 do not teach workstations “arranged in a peer-to-peer architecture.” In fact, the cited text does not disclose the arrangement of the workstations themselves. The cited text merely refers to the users themselves and the task that they are undertaking. The undersigned respectfully request that the Examiner

explain in what sense the cited passage relates to “workstations arranged in a peer-to-peer architecture.” If the Examiner maintains the belief that the cited text teaches “workstations arranged in a peer-to-peer architecture” the undersigned respectfully request that the Examiner explain how the cited text relates to “peer” relationships among workstations.

The undersigned wishes to draw the Examiner’s attention to Tang Fig. 8 and the accompanying description found at col. 15 line 28 – col. 18 line 61 of Tang. This text may be more relevant to the Examiner’s assertion that Tang teaches workstations arranged in a peer-to-peer architecture. In any event, whether or not the Examiner concludes that Fig. 8 and the accompanying text at col. 15 line 28 – col. 18 line 61 teaches peer-to-peer operation, other elements of the claims of the present application are still not found in Tang.

**... method providing a means for allowing multiple users simultaneously to modify a model of an object at separate workstations (col. 3, lines 46-61), such that any modification made at any workstation is duplicated at each workstation in the system (col. 2, lines 41-63),**

The Examiner, in his comments, asserts that col. 3, lines 46-61 of Tang teaches “means for allowing multiple users simultaneously to modify a model of an object at separate workstations.” The undersigned fails to see a connection between the cited text and the teaching asserted by the Examiner. The cited text merely contains a number of generalized statement – for example, the general statement that multiple users may be performing the same or similar task. The claimed invention is much more specific. What is claimed is “means for allowing multiple users simultaneously to modify a model of an object at separate workstations.” Based on the undersigned’s understanding of Tang, the cited text fails to disclose simultaneous modification of an object by multiple users, nor is such modification, as recited by claim 1, taught elsewhere in the Tang reference.

The Examiner, in his comments, further asserts that col. 2, lines 41-63 of Tang teaches “that any modification made at any workstation is duplicated at each workstation in the system.”

This Examiner's assertion is unsupported by the cited text. Col. 2, lines 41-63 of Tang is a general background discussion and discloses some ways in which an application is aware that more than one user is performing a similar task. For example, col. 2, lines 46-49 discloses that conventional web browsers can determine if two or more users are simultaneously accessing a web page. However, the claims of the present invention are directed not merely to access of information but simultaneous modification. How does the cited text of Tang disclose that "modification made at any workstation is duplicated at each workstation in the system?"

**the method comprising receiving at a first workstation input from a user specifying a modification of a model (col. 4, lines 20-52), translating input into command specifying the portion of the model to be modified and the modification to be made (col. 5, line 1 to col. 6, line 65), modifying model at first workstation in accordance with command (col. 7, line 1 to col. 8, line 14; col. 10, lines 28-62), transmitting command via a network to other workstations in the system (col. 11, lines 24-50), processing command at a second workstation (col. 12, lines 31-61), and modifying model at second workstation in accordance with command (col. 13, line 62 to col. 16, line 56).**

Generally speaking, the "heart" of the foregoing claim elements is that a model, maintained at two separate work stations, is kept in synchronization by transmitting modification commands between the workstations. For example, if a computer aided design system user at workstation #1 modifies a part of a model by applying an extrusion command to that part (thus modifying workstation #1's copy of the model data), that extrusion command is transmitted by workstation #1 to a second workstation (#2) so that the same part of the model, as maintained in a copy of the model data stored at workstation #2, will also undergo the extrusion command (thus updating workstation #2's copy of the model data and maintaining synchronization with the data at workstation #1). This functionality is recited by claim elements requiring "modifying said model at said first workstation in accordance with said command", "transmitting said command ... to other workstations..." and "modifying said model at said second workstation ...".

Contrary to the Examiner's suggestion, the cited text of Tang does not disclose modifying a model at a first workstation, transmitting the modification command to a second workstation, and modifying a model at a second in accordance with the command. For example, although the Examiner asserts that col. 13 line 62 – col. 16, line 16 teaches “modifying model at second workstation in accordance with command” the undersigned sees no such teaching in the cited text. Instead, the cited text is understood to teach operations of an “encounter server” through which users at different workstations are made aware of other users that are in “task proximity”, but the cited text does not actually disclose a system whereby modifications are automatically transmitted between different users workstations as recited by claim 1.

The undersigned notes that the text of Tang cited by the Examiner is quite lengthy and the Examiner's comments do not clearly point out how the claim elements are found in the cited text. For example, the examiner cites nearly two and a half columns of text for to support the proposition that Tang teaches “modifying model at second workstation in accordance with command.” However, nowhere does the Examiner explain how Tang shows a modification of a model at a second workstation in accordance with a command as recited by claim 1. If the Examiner maintains his rejection of claim 1, the undersigned respectfully request that the examiner provide further detail as to how each of the elements of claim 1 are found in Tang and further detail explaining how the elements are interrelated in the manner specified by claim 1. This additional information is necessary for the undersigned to determine whether an appeal of the Examiner's rejection is necessary (See MPEP § 706.07, ground for rejection “must be clearly developed to such an extent that applicant may readily judge the advisability of an appeal.”).

**In other words, Tang teaches awareness of others working on similar tasks in a network environment. One worker is task proximate to another worker when both are accessing similar types of data or using similar application tools within a particular time period. Workers share information on command tasks. Task proximity is based on three distinct factors (1) the application the worker is currently using, (2) the data the worker is**

**accessing or manipulating, and (3) the time at which such actions occur. Each of these factors permit users to collaborate by allowing each worker to see both those other workers who are task proximate and those who are interacting. For example, the data being manipulated may be a spreadsheet. Worker A is currently working on the spreadsheet while worker B can access the same spreadsheet and see the changes that worker A is incorporated without duplicating the same change.**

The Examiner's summary of Tang further reinforces the fact that Tang and the present application are directed to entirely different inventions. While Tang teaches "awareness of others working on similar tasks" the present application has a different focus. The present claims are directed to is a system for simultaneous modification of an object by multiple workstations that are arranged in a peer-to-peer architecture. This is not "awareness of others working on similar tasks in a network environment" as taught by Tang. The undersigned believes that the Examiner has failed to show the elements recited by claim 1 of the present application and respectfully request that the Examiner withdraw his rejection under 35 USC 102 and allow the claims.

**Re claims 2-3, Tang teaches plurality of workstations each run applications comprising a distributor component, a feature modeler, and a geometric modeler**

**In figure 1, Tang teaches a workstation consisting of an information display (element 30 of figure 1) corresponds to a distributor component that distribute active information to other users, icons (element 13 of figure 1) corresponds to a feature modeler that make changes in the features display, and an encounter (element 20 of figure 1) corresponds to a geometric modeler which generically displays symbols representing the users.**

**Re claim 4, Tang teaches distributor component, feature modeler, and geometric modeler on each of plurality of workstations are the same (col. 5, lines 12-32; fig 1). In other words, Tang discloses each workstation consisting of elements 30, 13, and 20 of figure 1.**

**Re claim 5, Tang discloses geometric modeler on each of plurality of workstations employs persistent generic naming (col. 4, line 20 to col. 5, line 59). In other words, Tang teaches the encounter displays generic naming for each user. Each user has name associated with the display image but the file application or the information to be manipulated are in generic naming thus other users can easily accessed the information.**

Claims 2-5 depend on claim 1 and are patentable over Tang for at least the reasons stated with respect to claim 1.

**Claims 6-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang et al. (US patent no. 5,960,173) in view of Shinagawa et al. (US patent no. 6,323, 863).**

**Re claims 8, 14, 19-20, and 23, Tang discloses a computer system receiving input into a command specifying a modification of the model (col. 2, lines 41-63; col. 3, lines 34-61; col. 4, lines 20-52), translating input into command specifying the portion of the model to be modified and the modification to be made (col. 5, line 1 to col. 6, line 65), modifying model in accordance with command (col. 7, line 1 to col. 8, line 14; col. 10, lines 28-62), transmitting command via a network to other workstations in the system (col. 11, lines 24-50). In other words, Tang teaches awareness of others working on similar tasks in a network environment. One worker is task proximate to another worker when both are accessing similar types of data or using similar application tools within a particular time period. Workers share information on command tasks. Task proximity is based on three distinct factors (1) the application the worker is currently using, (2) the data the worker is accessing or manipulating, and (3) the time at which such actions occur. Each of these factors permit users to collaborate by allowing each worker to see both those other workers who are task proximate and those who are interacting. For example, the data being manipulated may be a spreadsheet. Worker A is currently working on the spreadsheet**

**while worker B can access the same spreadsheet and see the changes that worker A is incorporated without duplicating the same change.**

As discussed above with respect to claim 1, Tang does not teach the elements cited in the foregoing comment from the Examiner. Accordingly, Tang also does not teach these elements (or the substance thereof) as recited in claims 8, 14, 19-20, and 23. Furthermore, these elements are not found in Shingawa. Because Tang and Shingawa, alone and in combination, fail to teach all of the elements recited by claim 1, 8, 14, 19-20, and 23 (and, consequently, they fail to teach all of the elements recited by their dependent claims 2-7, 9-13, 15-18, 21-22, 24-26), the Examiner's 103 rejection of claims in light of Tang and Shingawa is improper. It is respectfully requested that the Examiner withdraw his rejection of claims under 35 USC 103(a) and allow the claims.

**It would have been obvious for one of ordinary skill in the art to combine a cad device of Shinagawa to the system of Tang because it would have improve the user interface of Tang to allow precise manipulation of constraints relating to cell information (Shinagawa: col. 22, line 45 to col. 23, line 40; fig. 46).**

Generally speaking, Shinagawa is directed to a "method and apparatus for generating a graph showing an object structure, and also to data converting method, apparatus, system, and data recording medium, all of which can use the graph generating method and apparatus. The present invention is applicable to CAD (Computer Aided Design) or to solid data used in CG (Computer Graphics), for example." (Shingawa, col. 1, l. 8-14).

The undersigned believes that Shinagawa is not pertinent to the inventions claimed in the present application and that the Examiner has failed to meet his burden of establishing a prima facie case of obviousness. The Examiner's burden is quite clear. As stated in MPEP 706.02(j) ...

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 -§ 2143.03 for decisions pertinent to each of these criteria.

(MPEP 706.02(j) emphasis added)

With regard to the Examiner's first burden, i.e., some suggestion or motivation ... to combine the references, the Examiner has not provided any objective evidence that one would be motivated to combine Tang's "awareness" enabling system with Shingawa's "method and apparatus for generating a graph." The undersigned believes these prior art references are directed to quite different endeavors. If the Examiner maintains this rejection, the undersigned respectfully request that the Examiner explain, and provide objective evidence, showing why one would be motivated to combine Tang's teaching regarding "awareness" systems with Shingawa's teachings regarding a "method and apparatus for generating a graph." These appear to be very different teachings.

With regard to the Examiner's second burden, i.e., a reasonable expectation of success, the undersigned fails to see how one can reasonably expect to combine Tang's "awareness" system with Shingawa's "method and apparatus for generating a graph" and expect to produce a system that successfully operates in the manner recited by the claims of the present application. Further explanation from the Examiner is requested.

Application No. 09/887,404  
Amendment in Response to the July 16, 2003 Office Action  
Docket No.: 5974-075

With regard to the Examiner's third burden, the Examiner has relied on Tang for teaching a significant number of the elements of independent claims 1, 8, 14, 19-20, and 23. As explained above, with respect to claim 1, these elements are simply not taught or suggested by Tang. Furthermore, the undersigned has reviewed Shingawa and believes that Shingawa also fails to teach or suggest the elements of claims 1, 8, 14, 19-20, and 23. Thus, Tang and Shingawa do not teach or suggest all of the elements recited by the claims and, consequently, the Examiner has not met his second burden.

#### Further Comments

Based on the reasons for rejection stated by the Examiner, the undersigned is concerned that the Examiner may have a fundamental misunderstanding of the claimed invention. If the Examiner maintains his belief that the claims are anticipated by Tang, or obvious in light of Tang and Shingawa, the undersigned request a telephone conference with the Examiner before the issue of a further office action.

#### Conclusion

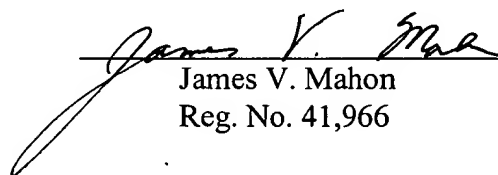
Claims 1-26 are now pending and are believed to be in condition for allowance. No new matter has been added.

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Respectfully submitted,

  
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